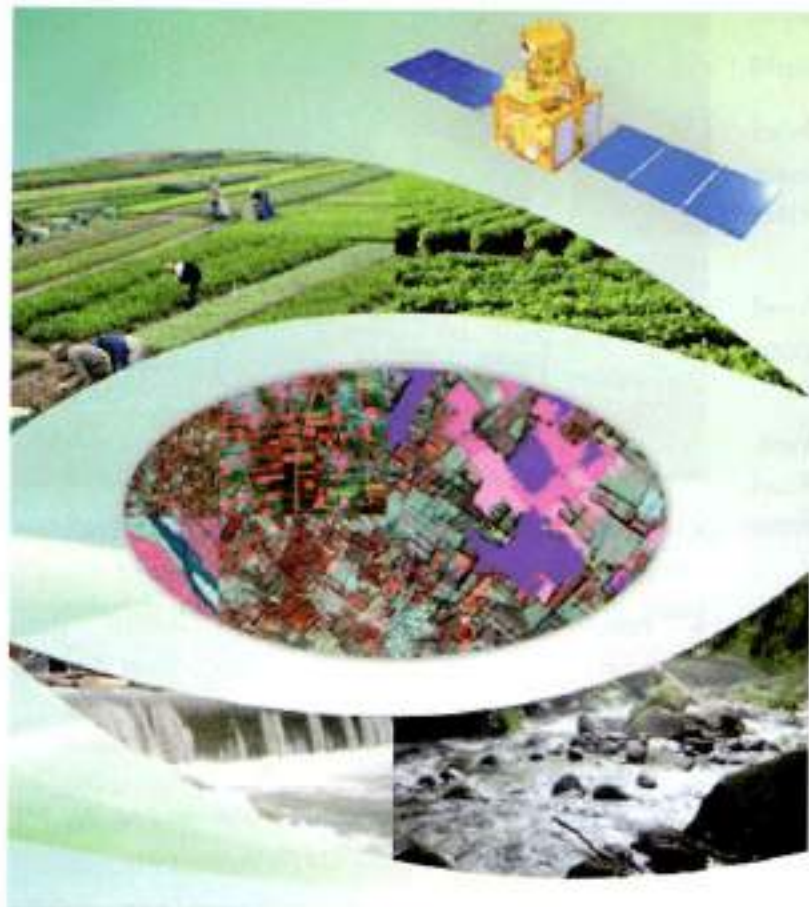


# Krishi-Decision Support System (Krishi-DSS)

**Krishi DSS spearheads a transformative journey in Indian agriculture. Often referred to as the “Gati Shakti” for Indian agriculture, Krishi DSS presents a master plan to expedite the development and adoption of geospatial and non-geo spatial technologies. Together, it will help build a resilient, sustainable, and prosperous agriculture for India.**



**T**he geo-spatial platform, Krishi-Decision Support System (Krishi DSS), is a powerful tool to empower stakeholders with real-time data-driven insights on weather patterns, soil conditions, crop health, crop acreage and advisories.

An initiative of the Department of Agriculture and Farmers Welfare, launched on 16<sup>th</sup> August this year, Krishi-DSS is a first-of-its-kind geospatial platform specifically designed for Indian agriculture. The platform provides seamless access to comprehensive data including satellite images, weather information, reservoir storage, groundwater levels and soil health information, which can be easily accessed from anywhere at any time.

## Unlocking the Power of Data for Sustainable Agriculture Development

Krishi DSS spearheads a transformative journey in Indian agriculture through cutting-edge geospatial technologies. Often referred to as the “Gati Shakti” for Indian agriculture, Krishi DSS presents a master plan to expedite the development and adoption of geospatial and non-geo spatial technologies. Hosting hundreds of

agriculture data layers in one place, Krishi DSS embodies the potency of data in driving evidence-based and cost-effective solutions. Krishi DSS will empower Indian agriculture with a seamless integration of geospatial insights.

## Indigenous Geo-Spatial Platform for Informed Decision-Making in Agriculture

Krishi DSS, an integrated agriculture platform designed for informed decision-making, marks a leap for Indian agriculture to a realm of geospatial excellence. Representing a single reliable system for agricultural applications, Krishi DSS dynamically integrates data from state, central, and global levels, fostering a data-driven approach for sustainable agriculture. Agriculturists can unleash the power of geospatial maps, digital infrastructure, and comprehensive databases that collectively contribute to the platform’s versatility. As the Krishi DSS database expands over the next few years, it will revolutionize the way we approach agriculture.

## Connecting Stakeholders with Data-Driven Solution

Krishi DSS, the platform that serves as the bridge between farmers, stakeholders, and policymakers,





will equip Indian farm scientists, fertilizer companies, administration at various levels, and ultimately the farmers to arrive at informed decision-making. The application has been developed by the Department of Agriculture & Farmers Welfare and Department of Space as part of an MoU signed in December 2022 for using geospatial technologies and related databases for enhancing evidence based decision making capability of all the stakeholders in the agriculture sector.

Using RISAT-1A Earth observation satellite and VEDAS (Visualization of Earth observation Data and Archival System) portal of Department of Space, Krishi-DSS enhances the evidence-based decision-making capability of all the stakeholders in the agriculture sector by way of integration with MOSDAC and BHUVAN

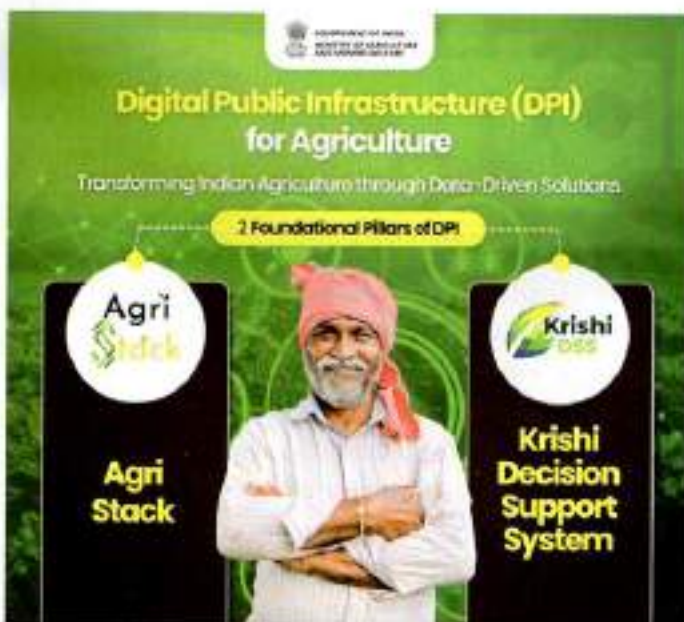
(Geo-platform) of ISRO and systems of ICAR. RISAT-1A is an all-weather satellite and can penetrate deep into vegetation. It can take high resolution geospatial images regardless of lighting conditions.

Krishi DSS empowers agriculture with data-driven insights, bridging the gap between those working in the fields and those shaping policies. Offering exclusive services such as closed group interactions, blogs, news, and surveys, the platform ensures that the wealth of information in its data library is accessible to all visitors. Users can register on Krishi DSS website <https://krishi-dss.gov.in/krishi-dss/> to unlock exclusive services and be part of the agriculture transformation.

### Applications of Krishi DSS towards Sustainable Agriculture Development

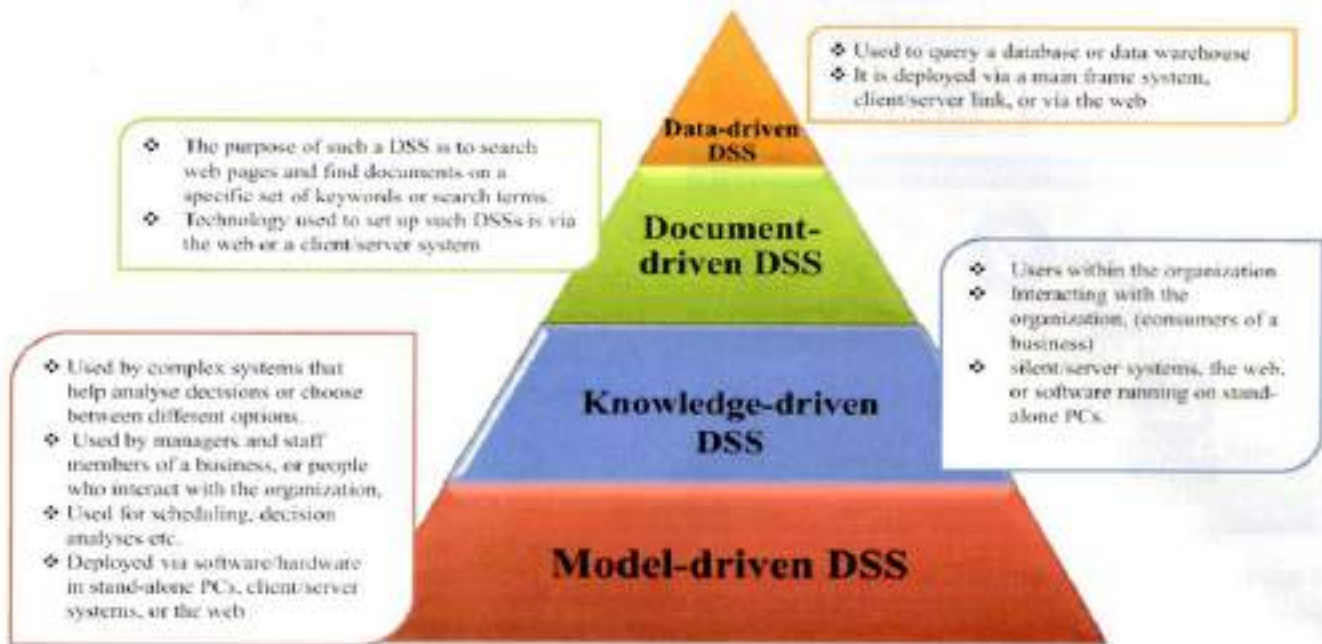
Krishi-DSS includes several advanced modules designed to support comprehensive agricultural management. From the vast expanse of fields to the smallest soil particle, Krishi-DSS has it covered.

- With crop mapping and monitoring, it enables to understand cropping patterns by analysing parcel-level crop maps over the different years. This information helps in understanding crop rotation practices and promotes sustainable agriculture by encouraging the cultivation of diverse crops.
- Drought monitoring helps to stay ahead of the drought, which gives near real-time information on various indicators i.e soil moisture, water storages, crop condition, dry spells etc, while crop weather watch keeps stakeholders informed about how weather is impacting the crops, crop harvest status, crop residue burning etc.
- With Field parcel segmentation, experts will be able to accurately analyse field parcel units which will help in understanding each parcels unique needs and cropping patterns for targeted interventions. One Nation-One Soil information system gives a comprehensive soil data at your fingertips i.e soil type, soil pH, soil health etc. Soil data will help in assessing crop suitability and land capability for implementing soil water conservation measures.
- Ground truth data library of Krishi-DSS fosters innovation by providing essential resources like ground truth data and spectral libraries for different crops to the researchers and industry. From flood





## TYPES OF DSS



impact assessment to Crop insurance solutions and many more, Krishi-DSS is a holistic solution. It's about empowering our farmers, informing our policies, and nourishing our nation. By integrating various data sources available on the Krishi DSS, various farmer-centric solutions can be developed such as right individual advisories to farmers, early disaster warning like Pest attack, Heavy rain, Hail storm etc.

### Digital Agriculture Mission: Tech for Transforming Farmers' Lives

Krishi-DSS is more than just a tool, it's a catalyst for innovation and sustainability in agriculture. Developed as part of the Digital Agriculture Mission, its second major component is the Agri Stack.

After the completion of AgriStack, there will be a revolutionary change in the field of agriculture. Additionally, the mission includes 'Soil Profile Mapping' and aims to enable farmer-centric digital services to provide timely and reliable information for the agriculture sector. Together, it will help build a resilient, sustainable, and prosperous agriculture for India.

The Digital Agriculture Mission was approved by the Union Cabinet Committee, chaired by Prime Minister Narendra Modi on September 2, 2024 with a substantial financial outlay of Rs. 2,817 Crore, including a central government share of Rs. 1,940 Crore.

The Digital Agriculture Mission is designed as an umbrella scheme to support various digital agriculture initiatives. These include creating Digital Public Infrastructure (DPI), implementing the Digital General Crop Estimation Survey (DGCES), and supporting IT initiatives by the Central Government, State Governments, and Academic and Research Institutions. □

(Source : PIB and Krishi DSS website, Government of India)

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE  
AND FARMERS WELFARE

## Digital Agriculture Mission

